

**IN THE UNITED STATES DISTRICT COURT  
SOUTHERN DISTRICT OF TEXAS  
HOUSTON DIVISION**

**ZACHRY INDUSTRIAL, INC.**

**Plaintiff,**

**v.**

**THREE PHASE LINE  
CONSTRUCTION, INC.**

**Defendant**

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**Civil Action: 4:17-cv-03751**

**DEFENDANT THREE PHASE LINE CONSTRUCTION, INC.'S  
MOTION FOR SUMMARY JUDGMENT**

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TO THE HONORABLE UNITED STATES DISTRICT COURT:

Defendant Three Phase Line Construction, Inc. (“Three Phase”) files this Motion for Summary Judgment on all claims asserted by Plaintiff, pursuant to FED. R. CIV. P. 56(a), and in support would respectfully show this Court as follows:

### **I. INTRODUCTION**

This diversity case concerns claims by Plaintiff Zachry Industrial, Inc. (“Zachry”) for damage to a HICO Generator Step-Up (“GSU”) transformer located at a power plant in Wharton, Texas. This power plant is owned by Exelon Corporation. Zachry was the general contractor for an expansion project at this plant. Three Phase was one of several other contractors performing work during this project.

Zachry claims the subject transformer was somehow damaged by employees of Three Phase who performed work to tie in overhead power lines to the transformer from December 5 to December 9, 2016. Because there is no direct proof that Three Phase’s employees damaged the transformer, or even exactly how or when the transformer was damaged, Zachry’s claims hinge upon a series of speculations. Zachry essentially alleges that, while Three Phase was working above the transformer, at some point one of its employees must have dropped something that somehow caused a small puncture hole in the transformer’s bushing below. Zachry further alleges that Three Phase finished its work and left the hole there without notifying anyone, and apparently retrieved the damage-causing tool. Zachry also claims that, over the next *five weeks*, sufficient rainfall over several days entered the transformer through the hole, collected in the transformer, and ultimately caused the transformer to explode more than a month after it was

energized in the early morning hours of January 28, 2017, immediately after a lightning strike during a thunderstorm.

Zachry blames Three Phase for the damage to the transformer and seeks recovery of \$6 million in speculative damages. But despite its efforts, Zachry cannot establish *when* the hole in the transformer was made, *how* it was made, or *who* made it; nor can Zachry even prove that a Three Phase employee carried a tool that could have caused such a hole. Importantly, Zachry also cannot rule out other likely potential causes of the damage to the transformer or prove that, “more likely than not” the damage was caused by Three Phase employees on the limited days they were working at this plant, as opposed to during the several weeks after they left and before the transformer failed. As a result, a jury considering the evidence in this case will be left to speculate about the cause of Zachry’s claimed damages. Because controlling Texas (and Fifth Circuit) precedent require more evidence to submit claims to a jury, summary judgment is appropriate here.

## II. SUMMARY JUDGMENT EVIDENCE

Three Phase relies upon the following summary judgment evidence:

Ex.	Description
	<b>Photos</b>
1.	Photo of Site
2.	Photo of GSU, from front (FAP Report at 14)
3.	Photo of GSU, from side
4.	Enlarged Photo of Bushing (Way Report at 10)
5.	Detailed Photo of Lines, Jumpers, & Bushing (FAP Report at 15)
6.	Photo of Bushing Cap with Hole (Lemberg Report at 4)
7.	Photos of Cranes & Manlifts

	<b>Key Documents</b>
8.	Three Phase Timesheets
9.	Pre-Energization Check List
10.	Initial Energization Procedure
11.	Proximity Permits for Cranes Near GSU 8001
	<b>Fact Witnesses – Deposition excerpts<sup>1</sup></b>
	<b><i>Three Phase Employees</i></b>
12.	Julian Siller – Welder
13.	Patrick Conley – Foreman
14.	Donald Bullock – Apprentice
15.	Natalie Brady – Project Manager
	<b><i>Zachary Employees</i></b>
16.	Josh McCord – Construction Representative
17.	Greg Davis – Project Manager
18.	Francisco Cesenes – Employee
19.	Jose Charles – Employee
	<b><i>Employees for Other Companies</i></b>
20.	Walker Anderson – Consultant for Exelon
21.	Patrick Warman – Field Supervisor for TLS
	<b>Expert Witnesses – Deposition excerpts</b>
	<b><i>Zachary’s Causation Experts</i></b>
22.	Michael Casey, Ph.D. – Metallurgist
23.	Andrew Marchesseault – P.E. – Mechanical Engineer
24.	Edmund Feloni, P.E. – Electrical Engineer
25.	Jim Wiethorn, P.E. – Crane Accident Analyst
	<b><i>Three Phase’s Causation Experts</i></b>
26.	Joseph Lemberg, Ph.D., P.E. – Metallurgist

<sup>1</sup> Pursuant to this Court’s Local Rule 5.E regarding Motion Practice, Three Phase has extracted and attached only the parts of the depositions necessary for this motion.

27.	Paul Way, P.E. – Electrical & Mechanical Engineer
28.	Alex Kattamis, Ph.D. – Electrical Engineer
	<b><i>Videos of Three Phase’s Drop-Test</i></b>
29.	Screenshots from Videos, Setup (Lemberg Report at 21, Fig. 16)
30.	Screenshots from Videos, Impact (Lemberg Report at 20, Fig. 15)
31.	Videos of Drop Test (USB Drive) <sup>2</sup>

### III. FACTS

***The Colorado Bend II expansion project.*** The Colorado Bend Generating Station (“Colorado Bend”) is a power station located in Wharton, Texas and is owned and operated by Exelon Corporation (“Exelon”). (Doc. 1, ¶ 5) In 2014, Exelon planned to expand the plant to include a combined cycle gas turbine unit. (*Id.*, ¶ 6) The construction plans called for the installation of additional equipment, including a GSU transformer. (*Id.*) Exelon retained Zachry to build the expansion, called “Colorado Bend II.” (*Id.*; see also Ex. 1, Photo of Site; Ex. 13, Conley at 36:9–38:10)

Exelon separately hired MasTec, Inc. (“MasTec”) to perform the switchyard tie-in work to provide backfeed power to Colorado Bend II—a task outside the scope of Zachry’s work. (Doc. 1, ¶ 7) As part of its work, MasTec installed the overhead transmission lines above the transformers. (Ex. 13, Conley at 35:14–25)

***Three Phase’s job from December 5–9, 2016.*** MasTec hired one of its subsidiaries, Three Phase, to hook up the overhead transmission lines to the high voltage (HV) bushings on the GSU transformers. (*Id.*; Doc. 1, ¶ 7) Basically, Three Phase’s job

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<sup>2</sup> This USB Exhibit has been delivered to the Court concurrently with the filing of this motion, and a copy has been provided to all counsel.

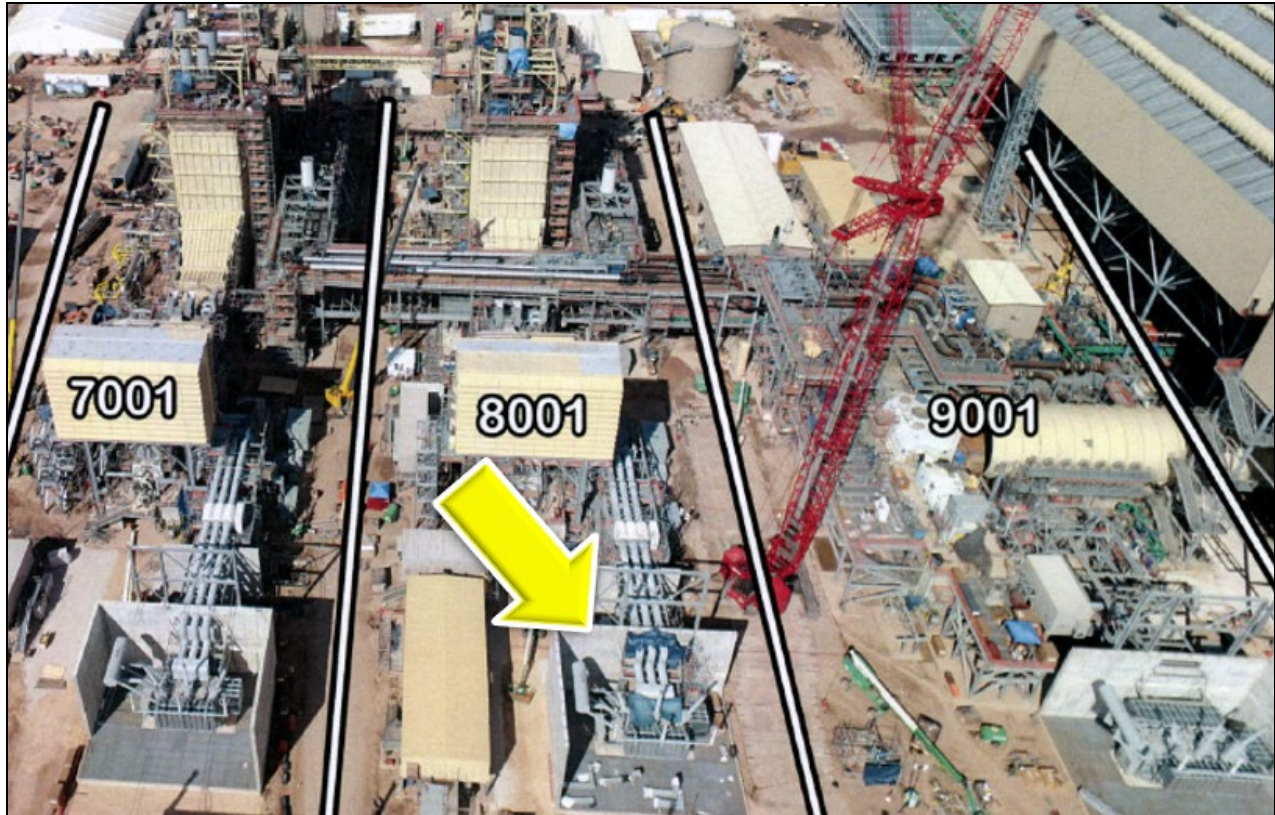


was to weld and hang jumpers (also called “drop down cables” or “drop line conductors”) from the overhead transmission lines down to the bushings located on the tops of the transformers. (Ex. 13, Conley at 75:11–23, 78:2–11; Ex. 12, Siller at 49:17–22) Three Phase used “NEMA Pads”<sup>3</sup> to connect the jumpers to the transmission line, and then to the bushings. (Ex. 13, Conley at 65:6–22)

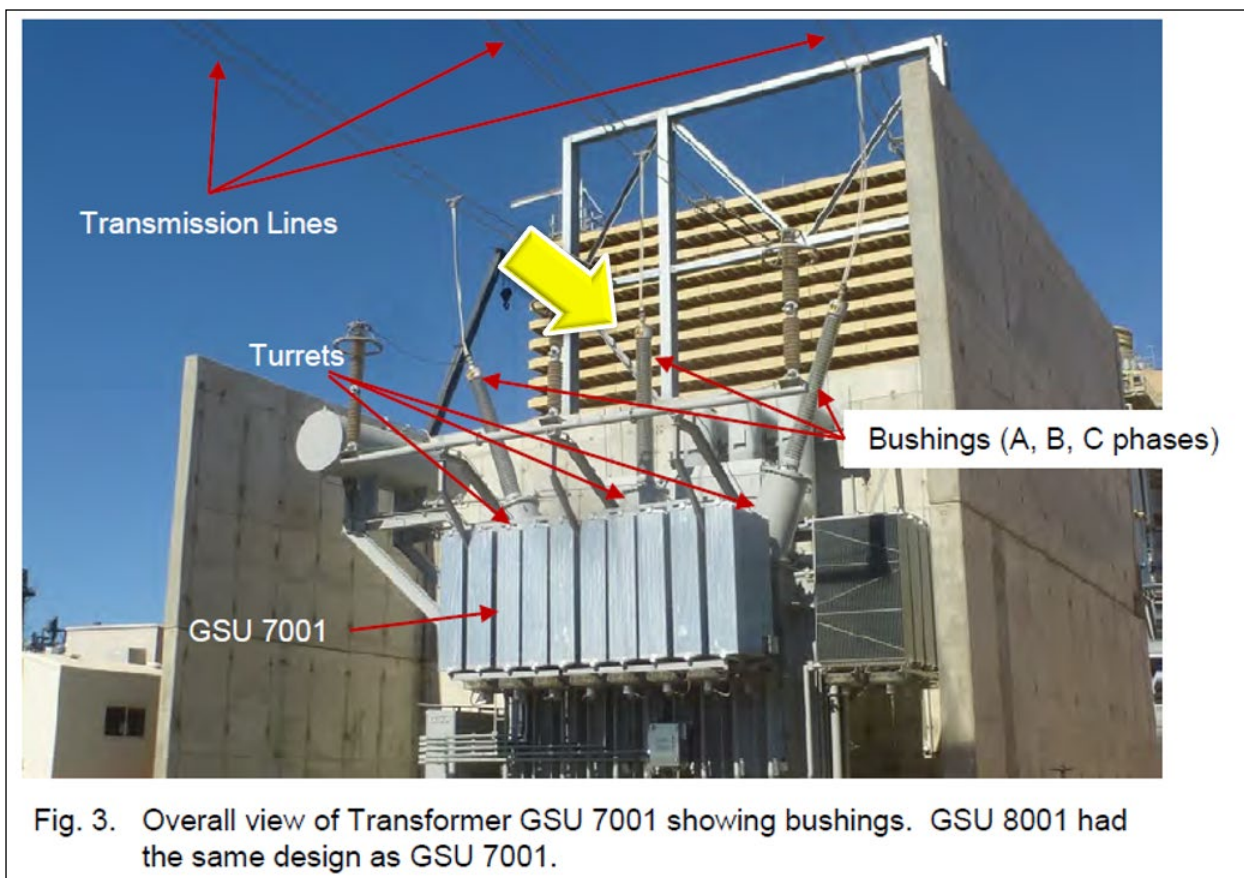
Three Phase performed its work at the plant over five days, from Monday December 5 to Friday December 9, 2016. (Ex. 12, Siller at 60:23–61:2; Ex. 13, Conley at 78:12–17; Ex. 8, Timesheets) Three Phase connected the jumpers to transformers located in three separate transformer bays—transformer 7001, 8001, and 9001. (Ex. 12, Siller at 66:25–67:25) The transformer at issue is 8001, shown by the arrow in the photograph below. (Ex. 1, Photo of Site)

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<sup>3</sup> “NEMA” is an acronym for the National Electrical Manufacturer’s Association. (Ex. 13, Conley at 68:4–8)



Below is a photograph showing one of these bays, with an arrow pointing to the middle, “HV2” or “B phase” bushing at issue:



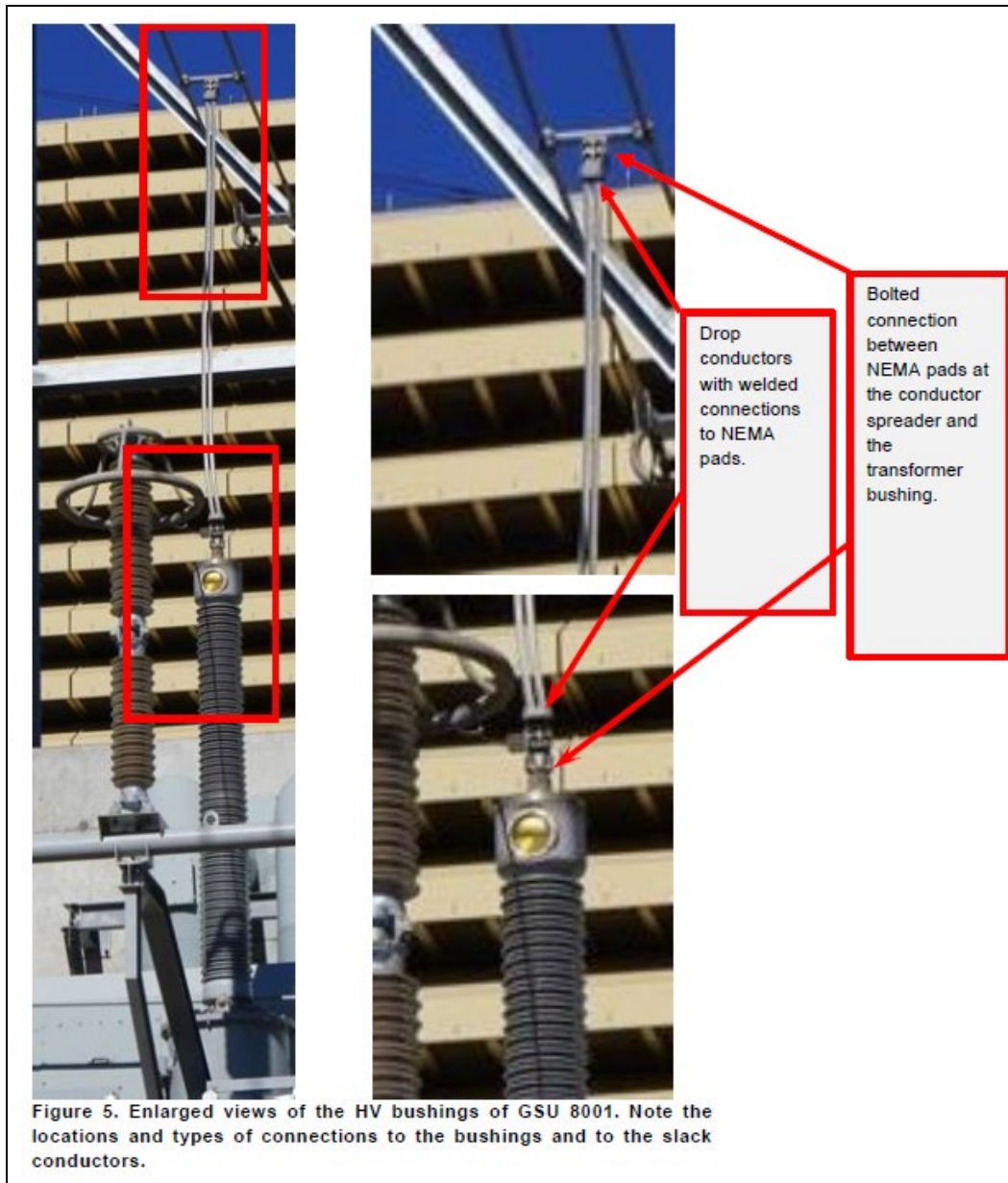
(Ex. 2, Photo of GSU, from front<sup>4</sup>; *see also* Ex. 3, Photo of GSU, from side<sup>5</sup>)

Three Phase's employees installed the jumpers to connect the overhead transmission lines to the bushing at the top of the transformer, as indicated in the following photographs:

<sup>4</sup> Excerpt from Zachry's Expert Failure Analysis & Prevention, Inc. ("FAP") Report at 14.

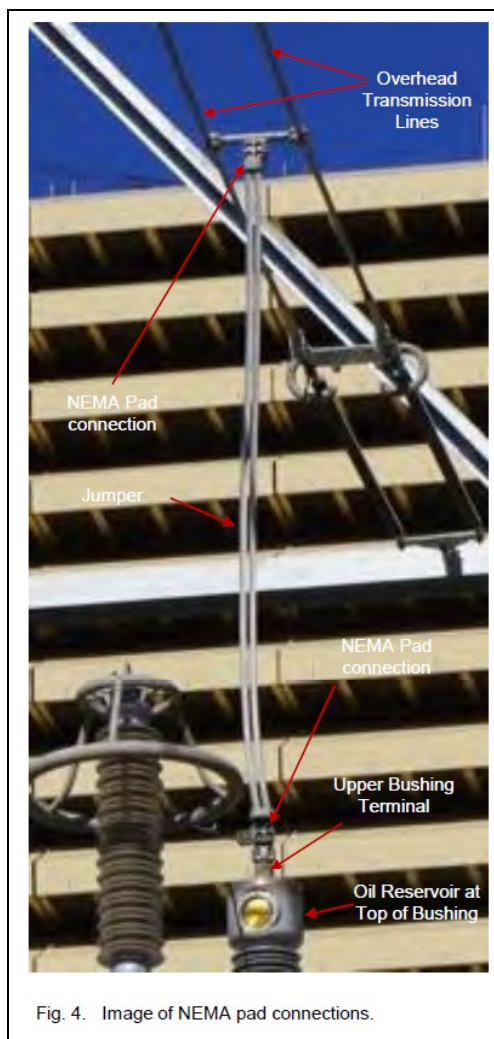
<sup>5</sup> *See* Ex. 13, Conley at 62:16–64:2 (identifying various parts of GSU); *see also* Ex. 21, Warman at 66:1–19 (explaining the B phase [or HV2] bushing at issue is located in the middle).





(Ex. 4, Enlarged Photo of Bushing)<sup>6</sup>

<sup>6</sup> Excerpt from Three Phase's expert Paul Way's Report at 10.



(Ex. 5, Detailed Photo of Lines, Jumpers, & Bushing)<sup>7</sup>

**December 15, 2016.** After its employees completed their work, Three Phase left the plant site. A week passed without incident, and on December 15, Zachry first energized GSU 8001. Prior to this initial energization, Zachry was to perform a Pre-Energization Check List and Initial Energization Procedure. (See Exs. 9, 10) A representative from Zachry was required to verify that the checklist and itemized procedures were followed, including confirming that all bolted bus and power

<sup>7</sup> FAP Report at 15.

connections were properly mechanically torqued. (See Ex. 10, Initial Energization Procedure at 6) Zachry's expert, Edmund Feloni, agreed that Zachry was required to verify that the itemized steps of its Pre-Energization Check List were performed *before* GSU 8001 was energized. (Ex. 24, Feloni at 137:21–138:8, 142:14–143:4)<sup>8</sup>

<b>Zachry Engineering Corporation</b> <b>Work Instruction</b> <i>Colorado Bend Initial Energization Procedure</i>				
<b>8. Procedure</b> Phase 1-This covers the initial energization marked in yellow of the attached one-lines.				
		Zachry Initials	Exelon Initials	Date
1.1.	Verify and Initial that the Pre-Energization Check List is complete.			

This fact was further corroborated by Patrick Warman, field supervisor for Transformer Lifecycle Services (“TLS”)—the company that had installed the transformers in August 2016. (Ex. 21, Warman at 12:6–19) Warman explained that Zachry and Exelon performed the “startup” or initial energization. (*Id.* at 56:8–15) Exelon hired Walker Anderson as a consultant. (Ex. 20, Anderson at 16:2–6) Anderson explained that bushings are usually wiped down prior to energization and that the porcelain on the bushing must be cleaned (which includes wiping down the top of the bushing). (*Id.* at 83:17–24, 84:6–9, 85:12–19)

In other words, as part of Zachry's own Pre-Energization Check List, bushings must be inspected and hand-wiped down prior to any energization, and any bolted

<sup>8</sup> To date, Zachry has not produced any Pre-Energization Checklist for GSU 8001, the transformer at issue. Zachry has only produced an unsigned copy of the Pre-Energization Checklist for GSU 7001.

connections checked to confirm proper torquing. (*See, e.g.*, Ex. 9, Pre-Energization Check List at 8, 10–13) Obviously, checking bolted connections for torque and for resistance would have required work above the bushing—and wiping down any bushing would reveal the presence of damage to or holes in the top of the bushing. (Ex. 27, Way at 143:9–22, 159:16–160:1, 242:19–244:4, 246:13–23) Thus, assuming a Three Phase employee’s work had caused a hole in this bushing the previous week, the Zachry employee following the steps of its Pre-Energization Check List—i.e., checking bolted connections and wiping down the unit—would have discovered such a hole at that time. Here, no such hole was reported.

***January 18, 2017.*** Another month passed without incident. Heavy rainfall was reported on December 31, 2016, and again on January 17.

On January 18, 2017, transformer 8001 faulted during a thunderstorm, resulting in an explosion during backfeed operations. (Doc. 1, ¶ 9) A Zachry employee, Francisco Cesenes, was in an office onsite and he heard a “big bang” and “sonic boom”; when he went outside, he realized something had happened to the transformer. (Ex. 18, Cesenes at 85:13–86:19) Another Zachry employee, Joshua McCord, testified that during this thunderstorm, there was lightning in the area and the site “was on a lightning stand-down at the time.” He further testified, “And during that lightning stand-down, lightning struck and then the fault occurred. And so immediately, our first reaction was that it was struck by lightning.” (Ex. 16, McCord at 97:23–98:25)

Zachry’s internal investigation claims to have “ruled out” lightning. Instead, Zachry blamed the failure on rainwater collecting in the HV2 bushing, because after the

explosion the bushing cap was found to have a small puncture hole in the top. (*Id.*, ¶ 10)

Below is a photograph of the bushing cap and hole, after the explosion:



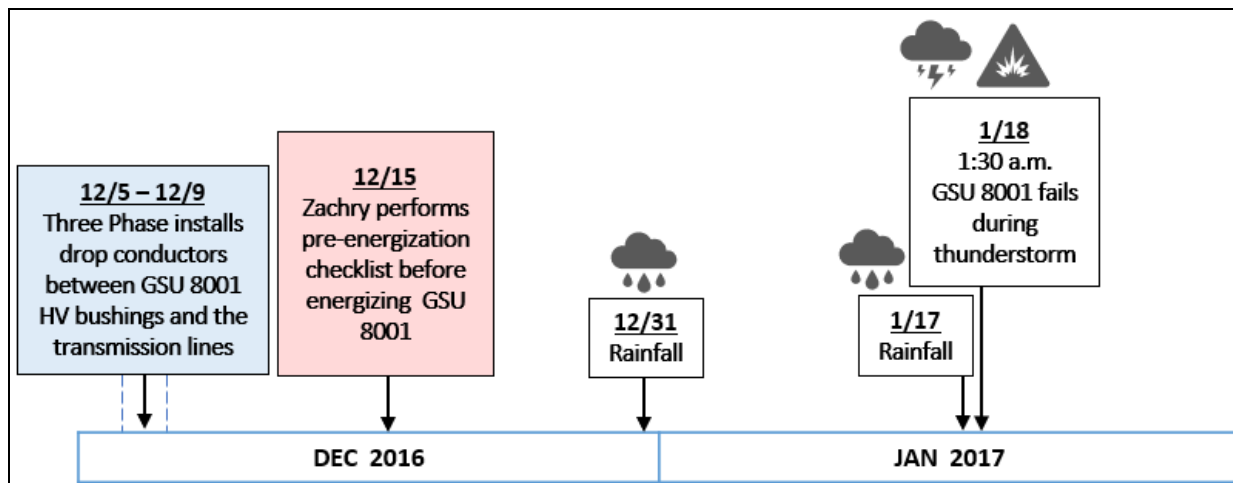
Figure 1. Representative image of the condition of the subject HV2 bushing as observed on January 31, 2017, approximately eight days following the trip of GSU 8001.

(*See* Ex. 6, Photo of Bushing Cap with Hole)<sup>9</sup> Zachry claims that, at some point while Three Phase employees were “engaged in welding operations” directly above the bushing, one of them “must have” dropped a tool and caused the puncture hole seen in this photograph. (Doc. 1, ¶ 11)

<sup>9</sup> Excerpt from Three Phase’s expert Joseph Lemberg Report at 4.



For the Court's reference, here is a summary of the relevant timeline:<sup>10</sup>



Adequate time for discovery has passed. Over the past several years, the parties have conducted extensive discovery, including deposing more than a dozen fact witnesses and numerous experts. Despite this, Zachry cannot present any competent evidence that a Three Phase employee actually dropped a tool onto the subject bushing. In fact, the evidence has shown just the opposite. Several Three Phase employees were deposed and none witnessed anyone dropping a tool. Zachry also claims the tool that made the hole in the bushing was a spud wrench (a large heavy wrench), despite the fact that no Three Phase employees carried or used a spud wrench to perform their work. Based on metallurgical testing of scratches found in and around the hole in the bushing, Zachry's experts opined the tool that made the hole was nickel-coated, but none of the tools used by Three Phase employees were nickel-coated. Zachry also retained multiple experts to opine that dropping the as-yet-unidentified tool *could* have caused the hole in the top of the bushing, but none performed any drop-testing of any tools on a similar

<sup>10</sup> This timeline only depicts the rainfall that accumulated greater than or equal to 0.1 inches.

metal surface to demonstrate whether or not this is actually true. And testing performed by Three Phase's experts shows Zachry's theory is actually highly unlikely.

Perhaps sensing the lack of support for its claims, Zachry recently asked this Court to allow it to amend its complaint so as to allege that welding was just one of the tasks Three Phase was performing, and that the hole in the bushing could have been created in the course of *any* aspect of work, not just during welding. (Doc. 60, ¶ 3) Of course, such an amendment would only make Zachry's claims *more* speculative, not less so—and this Court correctly denied this request. (Doc. 62)

#### IV. STANDARD OF REVIEW

This Court is well acquainted with the standard for granting a summary judgment. Summary judgment is proper when, viewing the evidence in the light most favorable to the non-movant, “the pleadings, depositions, answers to interrogatories, and admissions on file, together with the affidavits, if any, show that there is no genuine issue as to any material fact and that the moving party is entitled to a judgment as a matter of law.” *Celotex Corp. v. Catrett*, 477 U.S. 317, 323 (1986); *see* FED. R. CIV. P. 56(a). A dispute about a material fact is “genuine” if the evidence would allow a reasonable jury to find in favor of the non-movant. *Anderson v. Liberty Lobby, Inc.*, 477 U.S. 242, 248 (1986).

If the movant meets its burden and points out an absence of evidence on an essential element of the non-movant's case, on which the non-movant bears the burden of proof at trial, the non-movant must then present competent summary judgment evidence to support the essential elements of his claim and demonstrate that there is a genuine issue of material fact for trial. *Nat'l Ass'n of Gov't Emps. v. City Pub. Serv. Bd.*, 40 F.3d

698, 712 (5th Cir. 1994). In doing so, the non-movant may not rely merely on allegations, denials in a pleading, or unsubstantiated assertions that a fact issue exists, but must offer specific facts showing the existence of a genuine issue of material fact concerning every element of his causes of action. *Morris v. Cavan World Wide Moving, Inc.*, 144 F.3d 377, 380 (5th Cir. 1998); *see Brandon v. Sage Corp.*, 808 F.3d 266, 270 (5th Cir. 2015) (requiring more than “metaphysical doubts as to the material facts”).

As a result, “[t]estimony based on conjecture or speculation is insufficient to raise an issue of fact to defeat a summary judgment motion . . . .” *See Ruiz v. Whirlpool, Inc.*, 12 F.3d 510, 513 (5th Cir. 1994). Accordingly, conclusory allegations unsupported by evidence cannot overcome summary judgment. *Nat’l Ass’n of Gov’t Emps.*, 40 F.3d at 713; *Eason v. Thaler*, 73 F.3d 1322, 1325 (5th Cir. 1996). “[T]he mere existence of *some* alleged factual dispute between the parties will not defeat an otherwise properly supported motion for summary judgment.” *Liberty Lobby*, 477 U.S. at 247–48 (emphasis original); *see State Farm Life Ins. Co. v. Gutterman*, 896 F.2d 116, 118 (5th Cir. 1990). “Nor is the ‘mere scintilla of evidence’ sufficient; ‘there must be evidence on which the jury could reasonably find for the plaintiff.’” *Liberty Lobby*, 477 U.S. at 252. The Fifth Circuit requires non-movants to submit “significant probative evidence” in response to a motion for summary judgment. *See Gutterman*, 896 F.2d at 118. “If the evidence is merely colorable, or is not significantly probative, summary judgment may be granted.” *Thomas v. Barton Lodge II, Ltd.*, 174 F.3d 636, 644 (5th Cir. 1999) (citing *Liberty Lobby*, 477 U.S. at 249–50).

## V. ARGUMENT & AUTHORITIES

### A. Causation must be proven with evidence—not mere conjecture.

Zachry sued Three Phase in federal district court in Texas, basing jurisdiction on the diversity of the parties. *See* 28 U.S.C. § 1332.<sup>11</sup> Texas common law governs Zachry’s negligence claim. Zachry is required to demonstrate that Three Phase owed it a specific duty, that Three Phase breached that duty, that Three Phase’s alleged breach proximately caused damage, and that Zachry suffered specific damages resulting from Three Phase’s alleged breach. *Mosley v. Excel Corp.*, 109 F.3d 1006, 1009 (5th Cir. 1997).

Causation has two components, cause in fact, or “but for” cause, and foreseeability. *Id.* (citing *Doe v. Boys Clubs of Greater Dallas*, 907 S.W.2d 472, 477 (Tex. 1995)). Proof of causation requires more than mere conjecture or guess, and the existence of a causal link between plaintiff’s damage and defendant’s negligence must be demonstrated by the introduction of probative evidence. *Mosely*, 109 F.3d at 1009. Although “‘causation generally is a question of fact for the jury’[,] . . . if all the facts and inferences point so strongly against causation that no reasonable jury could find causation, then the district court should grant judgment as a matter of law.” *Goodner v. Hyundai Motor Co., Ltd.*, 650 F.3d 1034, 1044 (5th Cir. 2011) (quoting *Flock v. Scripto–Tokai Corp.*, 319 F.3d 231, 237 (5th Cir. 2003)).

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<sup>11</sup> Zachry is a Delaware corporation, with its principal place of business in Texas. Three Phase is incorporated and has its principal place of business in New Hampshire. (Doc. 1, ¶¶ 1–2)

**B. Zachry cannot present this Court with any evidence that a Three Phase employee dropped a tool onto the bushing and caused the hole.**

Zachry's speculative theory of liability in this case boils down to the fact that Three Phase's employees performed work above the bushing five weeks before the transformer's failure and carried tools to perform that work. Nothing more.

As a result, Zachry is required to make—and asks this Court to make—a series of factual inferences to fill in the gaps of its case. To support its theory of liability against Three Phase, Zachry must raise a material fact question as to each of the following:

1. An unknown worker dropped an unidentified (and perhaps, nickel-coated) tool of indeterminate size and weight at an unknown time during a welding assignment.
2. This mystery tool was somehow able to fall straight down onto the bushing and cause a puncture hole—i.e., that the mystery tool was somehow at a sufficient height above the bushing, that it would be able to puncture the hole when it falls, that the geometry and characteristics of the tool would allow it to fall straight down, and that it had an unobstructed path from the point it was dropped to the bushing.
3. After the accident causing this hole, everyone from Three Phase conspired to keep both the accident, and the unrecovered tool that somehow caused it a secret, because the mystery tool was never identified.
4. Over the next five weeks, sufficient rainwater entered the hole and collected inside the transformer during different rainstorms over different days, and yet the heavy rainfall on December 31 was insufficient to cause the failure.
5. Prior to the energization of this transformer, Zachry performed the necessary pre-energization steps on its checklist (which includes a visual inspection and hand-wiping down the top of the bushing, and checked the bolted connections above the bushing for torque) but somehow failed to observe any hole in the bushing.

6. After the transformer was energized, and during a backfeeding operation<sup>12</sup> there was a loud “boom” immediately after a lightning strike during a thunderstorm that occurred the same night the transformer exploded.
7. Only Three Phase’s employees could have caused the hole in the bushing—not any other workers who were working in and near the site, on cranes and manlifts, during the five weeks after Three Phase’s employees left the site—nor could the explosion have been caused by a lightning strike.

Texas law forbids this kind of “pyramiding” of inferences. *See Browning-Ferris, Inc. v. Reyna*, 865 S.W.2d 925, 927 (Tex. 1993) (“some suspicion linked to other suspicion produces only more suspicion, which is not the same as some evidence”); *Kindred v. Con/Chem, Inc.*, 650 S.W.2d 61, 63 (Tex. 1983) (“When the evidence offered to prove a vital fact is so weak as to do no more than create a mere surmise or suspicion of its existence, the evidence is no more than a scintilla and, in legal effect, is no evidence.”); *see also New York Underwriters Ins. Co. v. Trs. of First Baptist Church of Ranger*, 603 S.W.2d 378, 380 (Tex. Civ. App.—Eastland 1980, writ ref’d n.r.e.) (“An ultimate fact is too conjectural and speculative to support a judgment when that fact is ascertained by pyramiding one inference upon another.”).

### **1. Mere presence does not equate to proof.**

Just being present in the area when something bad (or good) happens is not proof of responsibility or causation. *See, e.g., Club Vista Dev. II, Inc. v. Oncor Elec. Delivery Co., LLC*, 2014 WL 4057434, at \*11 (Tex. App.—Dallas 2014, pet. denied) (evidence that smoker was present near area where fire occurred was not evidence that smoker caused fire); *Chubb Lloyds Ins. Co. v. H.C.B. Mech., Inc.*, 190 S.W.3d 89, 94–95 (Tex.

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<sup>12</sup> Backfeeding is the flow of electric power in the reverse direction. Here, it is the flow of power back into the powerplant instead of out into the community.

App.—Houston [1st Dist.] 2005, no pet.) (evidence that employee smoked at residence on day of fire was not evidence that employee carelessly or accidentally discarded cigarette and proximately caused fire at residence).

The recent decision in *Charter Communications, Inc. v. Lewis*, 2019 WL 6905025, at \*3 (Tex. App.—Fort Worth 2019, no pet.) is instructive. There, Dan Lewis alleged that flooding in his home was caused by an unknown employee of a subcontractor who was burying an internet cable. Lewis claimed the work crew caused the flooding because the “water appeared while the crew was doing their work.” One of the subcontractors used a water spigot without Lewis’s permission, but no evidence was offered about how the spigot was used or how any equipment was utilized in connection with the spigot. Lewis produced no evidence to show how merely turning on the spigot outside of the house was a substantial factor in causing flooding inside his house and without which flooding would not have occurred. “Certainly, the location and the timing of the flooding created a *suspicion* that there was a connection of some kind between the flooding in Lewis’s home and the subcontractor’s use of water in burying the cable. Suspicion, however, is not evidence.” *Id.* at \*3 (citing *Kindred*, 650 S.W.2d at 63) (emphasis original). In short, Lewis provided no more than a temporal connection between two events, without any evidence of a causal link. The court of appeals held there was no evidence the subcontractor’s employees’ use of the spigot was a substantial factor in causing the flooding, and rendered judgment accordingly that Lewis take nothing. *Id.*

Here, there is no evidence that a dropped tool could even create this kind of hole, let alone any evidence that a Three Phase employee carried, used, and then dropped such

a tool in the first place. At best, Zachry can offer only mere speculation—and thus, can raise only mere suspicion—as to what caused this GSU transformer to fail and explode immediately after a lightning strike during a thunderstorm, *five weeks* after Three Phase completed its work and left the premises.

**2. No witness ever saw a Three Phase employee drop a tool.**

• ***Julian Siller – Three Phase’s Welder***

Julian Siller was a welder employed by Three Phase. (Ex. 12, Siller at 44:3–13) Siller was present on the worksite for the five days that Three Phase was on site. (Ex. 8, Timesheets) Siller explained that two other Three Phase workmen (Chris Bowers and an apprentice, Donald Bullock) would attach the jumper at the top to the overhead transmission lines, and Siller would hook the jumper to the NEMA pad at the bottom of the jumper and then weld it to the top of the bushing. (Ex. 12, Siller at 50:18–25)

Specifically, Siller testified that his work involved welding the bottom end of the jumper to the NEMA pad that would attach to the top of the bushing. He and two other crewmembers (Bowers and Bullock) would hang the top end of the jumper to the overhead transmission lines. (*Id.* at 82:13–86:19) Siller explained that this was a “mechanical” connection made at the top of the jumper using a bolt—it was *not* welded because of the risks of burning the wire. (*Id.*) In other words, no welding was performed above the bushing at issue. Siller’s explanation of how the work was performed flatly contradicts Zachry’s theory that the hole was caused by a Three Phase workman dropping a tool from above while “engaged in welding operations directly above the bushing.” (*See* Doc. 1, ¶ 11) Zachry later tried to recant this claim when it sought to amend its petition to



allege that the hole in the bushing could have been created in the course of *any* aspect of work, not just during the welding—an even more speculative amendment which this Court correctly denied. (Doc. 62)

Siller also described the tools his team carried on the worksite: hammer, impact drill, band saw, rachets, ratchet cutters, tape measure, levels, blankets, and a spool welder or welding machine. (Ex. 12, Siller at 77:18–78:15) Importantly, Siller testified that *no one* used a spud wrench or a long screwdriver. (*Id.* at 78:16–79:17) Siller also confirmed that neither he nor his apprentice, Bullock, carried tools like a screwdriver up with them to perform any welding work. (*Id.* at 93:25–94:25)

Siller also described the precautions he and his Three Phase team followed. For example, he wrapped the bushings and the bushing caps with welding blankets to protect them from weld spatter. (*Id.* at 96:13–98:4, 129:22–130:5) Siller visually inspected each and every bushing before welding as part of his safety protocol. (*Id.* at 99:3–22) Siller testified that Zachry’s representatives often observed Three Phase crews working, and no one from Zachry ever told them they were doing something wrong. (*Id.* at 170:4–18)

When Siller’s crew completed its work, they noticed that there were workmen from other companies performing tasks in the same general vicinity of the transformers. (*Id.* at 165:17–167:22) He confirmed that when his team removed the welding blankets, there was no damage to and no holes in the bushing. (*Id.*) Notably, he said that after he removed his blankets, he did not see any other workers put blankets on the bushing caps. (*Id.* at 167:18–22) Siller could not say where the hole came from or what caused it, but

testified that no one from Three Phase dropped any tools or damaged the bushing. (*Id.* at 153:24–154:3, 170:4–18)

- ***Patrick Conley – Three Phase’s General Foreman***

Patrick Conley was Three Phase’s electrical general foreman for the project. (Ex. 13, Conley at 32:18–21) His job was to supervise and watch his crew work and was on site for part of the time that his crew was working. (*Id.* at 49:18–50:8; Ex. 8, Timesheets) Conley testified that none of his crew members dropped any tools. (Ex. 13, Conley at 111:15–17, 115:14–16) Further, neither he nor any member of his crew ever saw a hole in the bushing. (*Id.* at 115:20–116:1) Conley explained that his crew was in a position to see the top of the bushing, and if they had seen one, they would have notified Zachry because they are conscientious workers and because a hole could have posed a serious safety hazard. (*Id.* at 114:2–15)

He does not know how the hole was caused, but maintained that his crew did not drop any tools, including the cutter used to cut wires. (*Id.* at 108:4–21, 110:1–9, 82:17–19) Just like Siller, Conley confirmed that none of the Three Phase crewmembers carried or used a spud wrench. (*Id.* at 85:12–14, 115:17–19)

- ***Donald Bullock – Three Phase’s Apprentice***

Donald Bullock was a Three Phase apprentice. (Ex. 14, Bullock at 23:16–21) Just like Siller, Bullock was present on the worksite for the five days that Three Phase was on site. (Ex. 8, Timesheets) Bullock could not recall certain specific details of this project, but does not remember there were any problems while his crew was installing the jumpers. (Ex. 14, Bullock at 62:16–19) Just like Siller and Conley, Bullock never saw

any damage to the bushing while he was working on the project, and has no idea how the damage occurred or why Three Phase is being blamed for damaging it. (*Id.* at 74:2–21)

- ***Natalie Brady – Three Phase’s Project Manager***

Natalie Brady was essentially Three Phase’s project manager for this assignment. (Ex. 15, Brady at 18:17–25) She worked for EC Source Services, which (like Three Phase) is a wholly-owned subsidiary of MasTec. (*Id.* at 14:15–15:15)

After learning about the damaged transformer, Three Phase performed an investigation—including a truck inventory to confirm there were no spud wrenches in the Three Phase truck, because that was the type of tool alleged to have caused the damage to the bushing. (*Id.* at 58:2–17) Brady confirmed that none of the Three Phase employees had a spud wrench in their tool-boxes in the Three Phase truck; nor would they have had any need for such a tool on this project. As she explained, spud wrenches are used in large steel erection projects, not for welding projects or the kind of tasks Three Phase was performing at this site. (*Id.* at 60:15–61:13, 62:1–11, 82:3–22)

**3. Zachry’s employees cannot identify any tool that was used by Three Phase that could have caused the hole.**

Throughout this case, Zachry has suggested that this hole could have been caused by a variety of tools, including (but not limited to) the following:

- Spud wrench. (Ex. 13, Conley at 85:12–14; Ex. 12, Siller at 78:16–79:2; Ex. 16, McCord at 197:4–18)
- Wire cutters. (*See, e.g.*, Ex. 13, Conley at 108:11–21)
- Spool gun. (*Id.* at 109:16)

- Long (11-inch) screwdrivers. (*Id.*; Ex. 12, Siller at 79:3–17, 93:25–94:25)
- Drift pins or bull pen. (Ex. 13, Conley at 85:15–17; Ex. 24, Feloni at 60:1–2)
- Large ratchet cutting head. (Ex. 24, Feloni at 60:3)
- A “larger screwdriver-type device.” (Ex. 24, Feloni at 60:4–5)
- Top of a hammer. (*Id.* at 60:5)
- Drop line conductor. (Ex. 25, Wiethorn at 170:15–171:9)
- Or even something that fell off of a plane. (*See* Ex. 16, McCord at 197:11–18)

As discussed in more detail below, this speculation grows increasingly problematic for Zachry as it attempts to pursue its speculative claims against Three Phase, because neither Zachry’s fact witnesses nor its experts can identify a single tool that could have caused this hole—much less that any Three Phase employee actually carried and used such a tool during its work.

- ***Greg Davis – Zachry’s Project Manger***

Greg Davis was Zachry’s project manager. (Ex. 17, Davis at 34:19–35:4, 60:6–9) Davis explained that, when he saw the hole there, he assumed it was caused by a dropped spud wrench. (*Id.* at 142:17–143:23) Davis did not know of any testing performed in which a spud wrench was dropped onto the bushing to see if it would make a hole. (*See id.* at 57:12–59:11, 144:6–23, 145:25–146:9) Davis had not performed any metallurgical analysis to determine whether any metal from a spud wrench had been transferred onto the bushing. (*Id.* at 117:6–10) Importantly, it was Davis who admitted that *Zachry’s*

employees use spud wrenches. (*Id.* at 117:11–118:1) When Davis learned that, in fact, Three Phase employees did not use or carry spud wrenches, he claimed that “spud wrenches were available” and speculated that a Three Phase employee could have “borrowed one” from a Zachry employee. (*Id.* at 119:1–6)

Finally, when Davis learned that Three Phase employees did not use spud wrenches in performing their work, and as a result could not understand why they were being blamed for dropping a tool they never used, Davis admitted that he “can understand that.” (*Id.* at 119:7–14)

- ***Josh McCord – Zachry’s Construction Representative***

Josh McCord was Zachry’s construction representative. (Ex. 16, McCord at 11:11–16) After learning about the damaged bushing, he spoke to Juan Montelongo, a superintendent for MasTec. (*Id.* at 77:13–22) McCord’s recollection of this hearsay conversation is, at best, speculative. McCord claims he asked Montelongo whether MasTec or Three Phase ever generally used spud wrenches, and that Montelongo answered in the affirmative—but McCord never asked whether spud wrenches were actually used by Three Phase employees to perform the specific work assignment on *this* project. (*Id.* at 86:12–87:24) In fact, McCord admitted he never spoke to anyone directly with Three Phase about whether they used a spud wrench. (*Id.* at 87:25–88:5)

McCord admitted that, after the damage was discovered, Zachry used a sample spud wrench (part of *Zachry’s* own inventory) and took a photo of the wrench next to the hole. (*Id.* at 93:16–25) McCord admitted that he was not aware of any testing to

determine whether a spud wrench could pierce the stainless-steel bushing cap if dropped from a certain height. (*Id.* at 209:17–210:4)

- ***Francisco Cesenes – Zachry’s Worker***

Francisco Cesenes, a Zachry worker, said that he saw Three Phase working on the 8001 transformer, and never saw them do anything unsafe. (Ex. 18, Cesenes at 38:22–39:12) Moreover, Cesenes corroborated the fact that it was *Zachry* employees—not Three Phase employees—who used spud wrenches, along with hammers, and nine- or ten-inch bull pins. (*Id.* at 30:10–31:15)

- ***Jose Charles – Zachry’s Worker***

Jose Charles was another Zachry worker. (Ex. 19, Charles at 5:14–20) Like Cesenes, Charles said he did not know whether MasTech employees had spud wrenches onsite, but did know that *Zachry* employees carried spud wrenches. (*Id.* at 66:15–25)

#### **4. Zachry’s experts do not pass the requirements for reliable and admissible testimony set forth in *Daubert*.**

Because no tool was recovered from the scene—whether a spud wrench or anything else—Zachry cannot present this Court with any existing physical evidence of what caused this hole. Instead, Zachry chooses to rely on expert witnesses whose testimony cannot substantiate its case.

As this Court knows, retained experts may be qualified to offer opinions in a case when their education and relevant experience demonstrate knowledge suitable for that case. *See* FED. R. EVID. 701. But an expert’s opinion is only admissible when it is based on a reliable scientific and factual foundation and is relevant to the facts of the case. To

be reliable, the expert's opinion must be based on the *actual* facts—those known in the case and those known scientifically. To be relevant, the expert opinion must rigorously follow accepted scientific principles and apply them to the facts. *See, e.g., Daubert v. Merrell Dow Pharm., Inc.*, 509 U.S. 579, 597 (1993).

Zachry retained Michael Casey, Andrew Marchesseault, Jimmy Wiethorn, and Edmund Feloni as expert witnesses and asked them to determine the cause of the transformer failure and cause of the hole. All of them speculate that a Three Phase employee dropped a tool that caused the hole—but how they connect the dots to come to that conclusion is quite simply a pyramid of inferences with no factual basis for support.

- ***Michael Casey, Ph. D. – Zachry's Metallurgist***

Dr. Michael Casey is Zachry's retained expert in metallurgy, and president of his company, Failure Analysis & Prevention, Inc. ("FAP"). (Ex. 22, Casey at 26:10–13) Simply put, he tested the hole in the bushing and determined that nickel was present in markings located at the hole, but Casey conducted no testing whatsoever to determine whether any tool contains or is coated with nickel, or could have even caused this hole. (*Id.* at 119:15–120:2, 131:10–132:25)

Casey testified that the bushing cap itself is made of stainless steel. (*Id.* 52:5–15) The hole was tested, and that the presence of nickel was found. (*Id.* at 50:2–5) The presence of nickel, coupled with the "shape" of the puncture, led him to believe that the hole was caused by a tool that was dropped onto the bushing from above and transferred nickel at the area of the hole. (*Id.* at 50:2–25) But Casey did not (and could not) identify which tool allegedly caused the hole. (*Id.* at 92:19–93:4) Nevertheless, he opined that a

Three Phase employee caused the damage because he was unaware of any evidence that Zachry employees ever worked above the bushing with a spud wrench. (*Id.*)

Notably absent from Casey's analysis—and from that of the rest of Zachry's experts, for that matter—is any testing supporting these speculative opinions whatsoever. For example:

- ***No drop-tests.*** Casey never tested whether any tools could be dropped and create this kind of hole. (*Id.* at 103:6–9, 104:10–14, 133:17–25)
- ***No metallurgical-tests.*** Casey did not conduct any metallurgical or chemical testing to see whether any of the tools, including Zachry's exemplary spud wrench that has a black oxide finish, is made or coated with nickel. Instead, he simply speculated that “it may very well have nickel in it.” (*Id.* at 103:6–104:3, 104:18–24)

The cause of the hole in the subject bushing—according to Zachry's experts—is not a complicated series of events. But none of them attempted to determine, through testing, whether the damage could actually occur as they theorized. Casey admitted he conducted no scientific testing to determine whether a dropped tool could have made this puncture. (*Id.* 111:6–23; 112:18–24) Indeed, Casey admitted he has no proof to say which tool caused the hole or even which company's employee dropped it. (*Id.* at 108:11–15) Critically, he concedes that his opinion is that a Three Phase employee caused this damage *is not even an expert opinion* at all—because it is simply based on his personal assumptions based on the “circumstances” of this case. (*Id.* at 109:18–110:1)

The following line of questioning exemplifies Casey's overall lack of scientific testing and investigation in this case:

- Q. Have you found any tools in offering your testimony that you've been able to say, look, these are the tools in our investigation and



analysis of this case, these are the tools that could have made it?  
Have you done that?

....

A. As I said, tools are frequently coated with nickel, and it's clearly a tool, in my opinion, that caused that hole. And we don't have the tools that Three Phase had on site.

Q. I know, but that's not my question right now. My question is, you're giving opinions that a tool coated with nickel made it?

A. Or containing nickel.

Q. And I'm asking you, before you offer that opinion, we know the tools that can do this, did you actually go get some tools and say – so you can present it to me and to the jury, these tools are plated with nickel, these tools could have made the hole? Have we even done that? Have you done that?

A. I have not done that, no, sir.

(*Id.* at 132:3–25)

Casey testified that he and Marchesseault discussed conducting some testing to determine what it would take to puncture the bushing cap, but then decided they were not able to “accurately represent the site conditions.” (*Id.* at 55:19–56:6) But Casey also admitted that Marchesseault attempted a “tool-drop” test in their office onto a clamped, stainless steel sheet of metal, and was unable to puncture the metal using that setup. (*Id.* at 56:7–13) In short, Zachry retained Casey as an expert metallurgist, yet Casey's analysis ended in the same place it began: finding some nickel transfer at the puncture. Casey made no effort to *connect* that nickel transfer to any of the suspected tools.

- ***Andrew Marchesseault, P.E. – Zachry’s Mechanical Engineer***

Andrew Marchesseault is a mechanical and chemical engineer who also works with Michael Casey at FAP. (Ex. 23, Marchesseault at 5:25–6:24, 18:12–18) As with Casey’s, Marchesseault’s testimony revealed a series of unanswered questions:

- ***Date unknown.*** Marchesseault admitted that no testing was conducted to determine the date the puncture hole was made. (*Id.* at 46:8–47:13) He testified that the hole could have been made up to December 31, 2016, and still have accumulated enough water to cause the failure on January 18. (*Id.* at 73:2–10)
- ***No drop-testing.*** He performed no testing to confirm whether any tool—and specifically, a spud wrench—could have caused the puncture hole after having been dropped. (*See id.* at 79:10–82:17)
- ***No metallurgical-testing.*** He did not perform metallurgical testing on the exemplar spud wrench. When he learned it had a black oxide coating, he admitted that he was “not sure” whether that contained any nickel. (*Id.* at 82:18–83:6)
- ***No transfer-testing.*** He performed no testing to determine whether nickel will transfer from a tool to stainless steel when it is dropped. (*Id.* at 91:1–4)

In sum, just like Casey, Marchesseault can only speculate that an unknown and unidentified nickel-plated tool *could* have caused this hole, but he has no evidence that this actually occurred or which (or whose) tool it might have been. (*Id.* at 83:7–85:16) And, just like Casey, Marchesseault confirmed that he and Casey never developed a test to “replicate the conditions” that existed on site. (*Id.* at 75:24–76:7, 79:18–25)

- ***Edmund Feloni, P.E. – Zachry’s Electrical Engineer***

Zachry also retained Edmund Feloni, an electrical engineer, to examine how this failure occurred. (Ex. 24, Feloni at 12:5–19, 26:23–27:10) Importantly, Feloni admitted

he could provide only his “personal opinion”—and not an expert opinion—as to when the hole in the bushing was made. (*Id.* at 30:11–17) Like Zachry’s other experts, Feloni performed no testing or analysis to determine what kind or amount of force would be necessary to cause this puncture hole. (*Id.* at 44:2–11)

Feloni admitted he is unaware of any testing showing that any tools used by Three Phase actually match the evidence on the bushing, and that it was simply his “opinion” that a Three Phase tool caused the hole. (*Id.* at 55:23–57:10) But Feloni acknowledged he did not know who owned the tool shown in one of the photos of the bushing cap, or which tools Zachry employees used in their work. (*Id.* at 57:11–58:22) Feloni speculated that there might be a tool from Three Phase’s tool box that would have fit the hole, but admitted he was unaware that an actual inventory was performed of the Three Phase tool boxes and that no tool matching this hole was ever found. (*Id.* at 58:23–59:15). Instead, Feloni tried to downplay these facts by saying: “All I’m saying, it’s a tool.” (*See id.* at 59:16–25) He then went on to speculate that it could have been a drift pin, a bull pin, a large ratchet cutting head, a “larger screwdriver-type device,” the top of a hammer, or the end of a crescent wrench that caused the hole—again with no factual support for this string of speculations. (*Id.* at 60:1–6) Feloni summed up these guesses as follows:

A. I mean, there’s – there’s different types of tools, ***but I didn’t go into any scientific data of which tool it was.***

Q. (BY MR. VILLARREAL) Right.

A. Nor do I know if it was that tool that was held up as an exemplar. I believe somebody just grabbed it and said, “Look, it’s a tool.”

Q. And in reality, nobody knows what tools were actually out there and – and nobody knows what tool actually made this hole, correct?

A. That is correct.

(*Id.* at 60:7–17, emphasis added)

- ***Jimmy Wiethorn, P.E. – Zachry’s Crane Accident Analyst***

Zachry’s fourth causation expert is Jimmy Wiethorn, a specialist in crane accident analysis, who was hired to examine whether any operations involving the cranes surrounding the 8001 transformer could have resulted in a dropped object. (Ex. 25, Wiethorn at 15:1–7)

Wiethorn did not participate in any of the testing regarding the bushing cap. (*Id.* at 14:20–23) He maintained that his calculations are “purely analytical” and not based on any actual testing. (*Id.* at 57:19–61:14) Wiethorn included several theoretical mathematical calculations in his expert report pertaining to the weight and length of various tools—screwdrivers, spud wrenches, conductors—but admitted he never did any testing of his theories. (*See id.* at 126:25–135:1) For example:

Q. Simple question. You don’t have any test to show that these calculations that are theoretical and require certain assumptions and conditions are, in fact, true and accurate.

A. I have done no testing and will do no testing.

(*Id.* at 134:22–135:1)

Indeed, just as with Casey, Marchesseault, and Feloni, Wiethorn testified that no drop-testing was conducted. (*Id.* at 170:9–13) Wiethorn confirmed that no testing was performed to show how the drop line conductors (i.e., jumpers or drop line cables) could have fallen and caused this hole. (*Id.* at 170:15–171:9) Further, Wiethorn admitted that

*none* of the tools that he listed in his report as possible candidates actually contained any nickel, as was found on the hole. (*Id.* at 63:2–6) Wiethorn initially speculated that the overhead conductors might have contained nickel (and then transferred it to the bushing by falling and causing the hole) but when asked whether he conducted any testing or investigation to confirm this assumption, he was forced to admit that he had not. (*Id.* at 63:7–64:4)

In sum, Zachry’s retained experts conclude that a tool was dropped and caused this hole, that rain entered and collected in the transformer through that hole, and that accumulated rainwater caused the GSU to fail. But its experts never conducted any testing or explained the basis for their foundational—and therefore, most crucial—*inferences*: that a Three Phase employee carried and dropped a tool, and that the dropped tool was the cause of the hole. Instead, Zachry and its experts simply *assume* this to be so—all because Three Phase’s employees worked near transformer 8001 *five weeks* before it failed. According to them, a Three Phase employee must have been the one who dropped a tool, and this mysterious dropped tool must have caused the hole.

Accordingly, their opinions are not only incapable of raising a fact issue sufficient to defeat summary judgment, their opinions are unreliable and inadmissible pursuant to *Daubert* and its progeny. Zachry’s experts admittedly *never* relied on any actual facts in support of their opinions in this case (because there was nothing for them to examine) and performed no testing to validate those opinions. No tool (whether nickel-coated or otherwise) used by Three Phase and capable of making the hole was ever recovered, much less tested. Nor do Zachry’s experts express a single scientific principle in their

liability opinions in this case—such as might be validated by testing. Instead, they offer only legal theories and factual speculation. None of this contradicts the testimony of Three Phase’s employees that none of them dropped any tools or caused this hole, and none of it is sufficient to defeat summary judgment.

**5. Zachry has not even considered—much less ruled out—other possible causes of the damage to the bushing.**

Zachry also has not ruled out other possible causes for the damage to this bushing.

• ***Possible cause #1 – Workmen from other companies working near the GSU.***

Julian Siller, Three Phase’s welder, testified that when his crew completed its work, they noticed that there were workmen from other companies working in the same general vicinity of the transformers. (Ex. 12, Siller at 165:17–167:22) When his team removed the welding blankets, he did not see any holes or damage to the bushing, and the other employees put their own blankets on the bushing caps. (*Id.*)

Further, Walker Anderson explained that bushings are wiped down prior to energization (as confirmed on Zachry’s pre-energization checklist), and that the porcelain on the bushing should be cleaned (which includes wiping down the top of the bushing). (Ex. 20, Anderson at 83:17–24, 84:6–9, 85:12–19) In short, the bushings are inspected prior to energization, and checking the torque values of bolted connections (at the top of the bushing) is a necessary step listed on Zachry’s Pre-Energization Check List. (*See, e.g.,* Ex. 9, Pre-Energization Checklist at 8, 10–13; *see also* Ex. 27, Way at 143:9–22, 159:16–160:1, 242:19–244:4, 246:13–23) All of these tasks require the performance of work above the bushing—and would occur *after* Three Phase’s employees completed

their work and left the jobsite. Further, Marchesseault testified that the hole could have been made up to December 31, 2016, and still have accumulated enough water to cause the failure on January 18. (*See generally* Ex. 23, Marchesseault at 64:4–73:10) The fact that no one performing these tasks reported a hole in the bushing after Three Phase’s workmen left raises the distinct possibility that the hole was caused by someone else after Three Phase completed its work—a possibility that Zachry’s fact and expert witnesses never ruled out.

- ***Possible cause #2 – Lightning.***

Josh McCord, Zachry’s construction representative, testified that the failure occurred during a rainstorm in which there were lightning strikes in the area, and that the failure occurred right after a nearby lighting strike. (Ex. 16, McCord at 97:23–98:17) Zachry’s internal investigation concluded the damage was not caused by lightning, but by a small puncture hole and the intrusion of rainwater. (*Id.* at 100:20–101:7, 103:2–104:7) But exactly *how* Zachry ruled out lightning as a possible cause remains unclear.

- ***Possible cause #3 – Something falling from a surrounding crane or manlift.***

Paul Way, Three Phase’s electrical and mechanical engineer, testified how there were numerous cranes and manlifts surrounding GSU 8001. (*See* Ex. 27, Way at 140:11–25, 142:15–143:8, 153:4–154:15, 160:20–161:5, 215:22–216:24) Specifically, Way testified about the photos depicting the various cranes and manlifts around the site in December 2016. (*See* Ex. 7, Photos of Cranes & Manlifts; Ex. 27, Way at 212:6–20) He also testified about Zachry’s Electrical Proximity Permits that show the numerous times that a crane was positioned near GSU 8001 from December 10 (after Three Phase

completed its work) until December 27, 2016, and that many of these permits stated that part of the equipment would be within 20 feet of the powerlines. (See Ex. 11, Proximity Permits; Ex. 27, Way at 200:18–202:12, 214:16–215:24) With all of the massive cranes and surrounding manlifts, Zachry has failed to rule something falling from these pieces of equipment as another possible cause of the puncture hole.

- ***Possible cause #4 – Something else falling from the sky.***

The origin of this puncture is so unknown, and its potential causes so speculative that McCord testified that, during one meeting, someone from Exelon speculated that the hole could have been made by something that fell off of a plane. (Ex. 16, McCord at 197:11–18)

**C. Zachry cannot present any competent evidence to support its theory that a dropped tool could have caused this hole, and Three Phase has evidence to the contrary that Zachry cannot rule out.**

It remains Zachry's burden to prove its case, but it is unable to present any evidence that any hand tool, much less a specific hand tool used by Three Phase in its work at this location, could have caused the hole in the top of the bushing. Nonetheless, Three Phase can present evidence disproving one of Zachry's principal unproven theories—that a dropped spud wrench caused this hole.

- ***Joseph Lemberg, Ph.D., P.E. – Three Phase's Metallurgist***

Dr. Joseph Lemberg is Three Phase's expert metallurgist, and works with Exponent. (Ex. 26, Lemberg at 10:8–9, 13:4–8) Lemberg explained that, unlike the experts Zachry retained, he and his team performed scientific testing and experimentation that demonstrated that a dropped spud wrench could not cause the puncture hole.



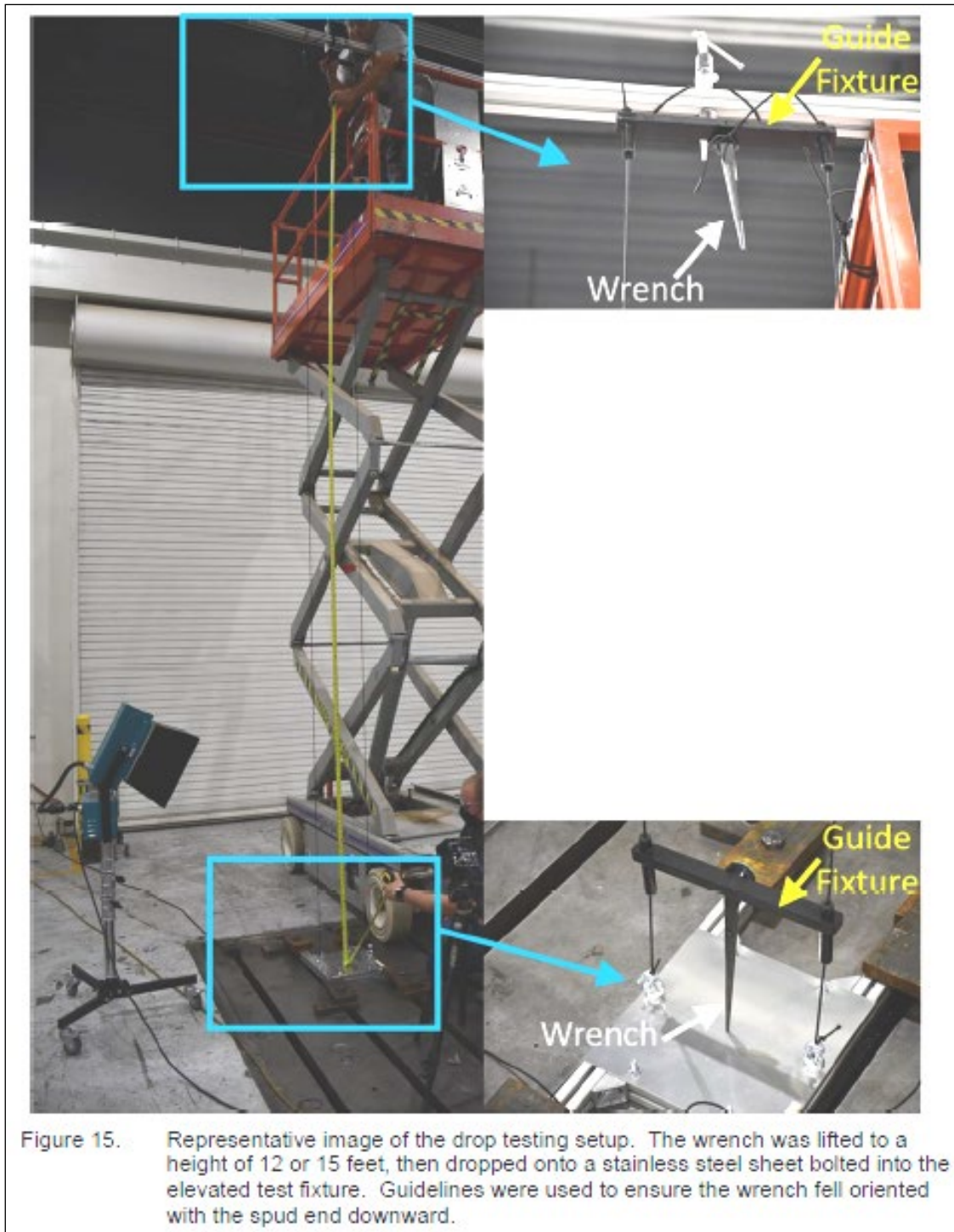
Lemberg designed and directed his colleague, Dr. Daniel Kingsley, to perform a drop test to simulate a dropped spud wrench over test plates that simulated the bushing cap. (*Id.* at 42:11–43:23, 46:5–12, 46:10–20)

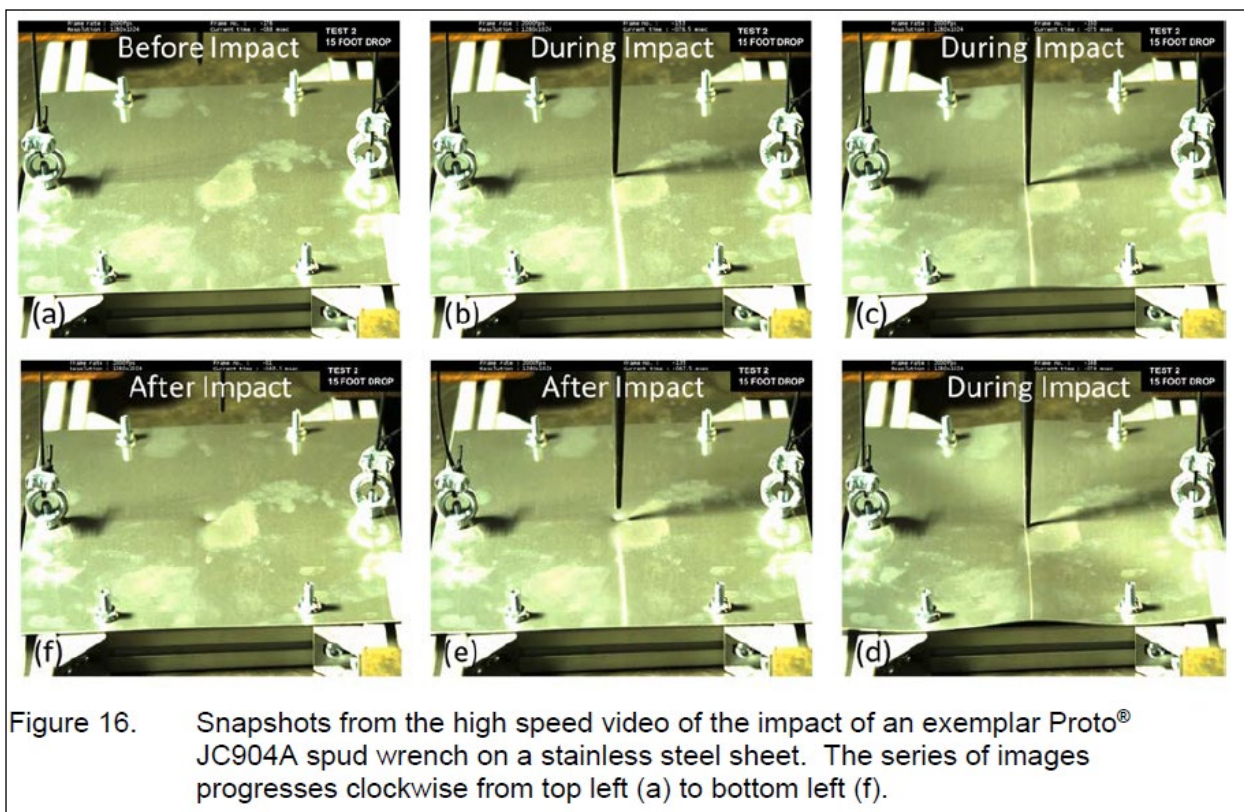
Specifically, Dr. Kingsley constructed an aluminum assembly that was rectangular in shape which provided the support for the stainless-steel sheet that was then going to be attached to it. (*Id.* at 59:10–14) Lemberg explained that Exponent performed the drop testing of a Proto® JC904A spud wrench onto the stainless-steel sheet from heights of 12 feet and 15 feet, and attached the wrench to a guide fixture to make it fall straight down. (*See id.* at 96:8–11, 101:2–15) The test was repeated four times (or “iterations”), twice at each test height. New wrenches and stainless-steel sheets were used for each test. All four tests yielded consistent results: there was *no penetration* by the tool. (*Id.* at 95:25–96:2) Notably, the dropped spud wrench only formed indentations that were *smaller* than what was seen in the actual bushing cap. (*Id.* at 96:3–7) Further, Dr. Lemberg tested the indentation and scratches that were made, and found no nickel was transferred. (*Id.* at 96:3–7)

Videos and screenshots of these drop-tests are attached and incorporated into this motion for this Court’s review. (Ex. 31, Videos of Drop test;<sup>13</sup> Exs. 29 and 30, Screenshots from videos, Lemberg Report at 21, Fig. 16; Ex. 26, Lemberg at 58:8–15, 152:25–155:8) Below are photos of the drop testing setup and impact of the spud wrench:

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<sup>13</sup> This USB contains the files in the “Drop Testing” folder within Exhibit 147 to Lemberg’s Deposition, i.e., the videos, photos, and documents directly related to Drop Tests 1–4.





Faced with this expert testimony and expert simulation testing evidence, Zachry's counsel then proposed that perhaps an "even bigger" spud wrench could have caused a hole. Lemberg summarized this drop-test and speculative question as follows:

A. For the smaller spud wrench that I did test, we gave Zachry the benefit of the doubt to say: Had there been a spud wrench present there is no evidence that there was one, but let's say there was. Let's say that it falls in just the right fashion from 15 feet – we don't know where the manlift was. We don't know where the gentlemen were in the manlift. We don't know if there was line of sight for the tool to even fall if a tool fell onto the bushing cap. But let's test it there. Even in that case, with that spud wrench, we did not make a puncture in our test. The larger spud had already been ruled out for the reasons that I enumerated.

Q. Okay. You can't say whether – and I know you've ruled it out, but you can't say whether using a larger spud wrench could have caused a hole if you used a larger spud wrench in your testing; true?

A. It would be speculation.

(Ex. 26, Lemberg at 102:18–103:11) As demonstrated in the videos provided to this Court, Lemberg’s testing entirely rules out Zachry’s experts’ theories about how this failure occurred. And its counsel’s question to Lemberg simply proves that, in light of the fact that its experts performed no testing whatsoever, *all* of their opinions are speculative.

Lemberg explained why he purposefully selected the Proto JC904A® spud wrench model for the drop-testing. (*Id.* at 103:12–18) Although Three Phase’s witnesses confirmed that no spud wrenches were used in this work, Natalie Brady mentioned that *if* Three Phase had used a spud wrench, this would be the model they would have used. (*Id.* at 103:19–104:5) Zachry’s counsel then suggested—without reference to any evidence in support—that it might be possible that, during the inventory of Three Phase’s tools, not all the toolboxes were searched, that no “inventory list” was found, and argued that information from this inventory is “hearsay.” (*Id.* at 104:21–24, 109:25–110:11) But there is nothing improper about Lemberg’s reliance on sworn witness testimony, even when parts of it might be hearsay. It is well established that “[e]xperts may rely on hearsay evidence in forming their opinions.” *First Nat. Bank of Louisville v. Lustig*, 96 F.3d 1554, 1576 (5th Cir. 1996); *see also Moss v. Ole S. Real Estate, Inc.*, 933 F.2d 1300, 1310 (5th Cir. 1991) (“Under Rule 703, experts are allowed to rely on evidence inadmissible in court in reaching their conclusions.”).

Moreover, it remains *Zachry’s burden* to prove its case. Greg Davis (Zachry’s project manager) explained that, when he saw the hole, he assumed it was caused by a spud wrench that was dropped. (Ex. 17, Davis at 142:17–143:23) From that point until

now, that has been Zachry's main theory, but its experts conducted zero testing (no drop-testing, no nickel-transfer testing, no metallurgical testing) to determine whether a spud wrench could have caused this hole—much less that it actually did. So it should not be surprising that, in the face of Three Phase's expert testimony, testing, and evidence showing this “dropped spud wrench” theory could not be the cause of the hole, Zachry now resorts to even more speculation that perhaps some other still unidentified tool, or an even larger spud wrench than is normally used in the industry, could have caused the hole.

Three Phase anticipates that Zachry will also challenge whether the drop-testing rig accurately reflected the “stiffness of the bushing cap,” trying to create doubt as to the reliability of this experiment—as its experts now theorize. (Ex. 26, Lemberg at 46:20–25) But it should not be ignored that the actual bushing cap (called “the artifact”) was shipped to FAP's offices after this accident, and that during the nearly 2.5 years that FAP has had this critical evidence, neither Zachry nor its experts have conducted a single test that demonstrates that this cap could be pierced by any of the objects that have been speculated as potential causes of the hole—*not once*. (*Id.* at 147:22–148:2, 150:7–18) In fact, the only “test” by Zachry's experts was Marchesseault's unsuccessful attempt to puncture a stainless-steel plate with a spud wrench—which he quickly wrote off as too dissimilar to “conditions in the field.” (*Id.* at 150:19–151:9) Perhaps because he did not get the desired results he was hoping for.

In sum, based on Lemberg's analysis and actual drop-testing, it is his expert opinion that, more likely than not, the puncture was not caused by a falling or dropped



cut conductor, cutter, welding gun, spud wrench, or screwdriver similar to the items put forward by Zachry or its experts as potential suspect tools in this matter; thus, the exact cause of the puncture remains unknown. (*Id.* at 124:13–125:10)

- ***Alex Kattamis, Ph.D., P.E. – Three Phase’s Electrical Engineer***

Alex Kattamis is Three Phase’s retained electrical engineer. (Ex. 28, Kattamis at 9:6–8) Notably, he testified that he reviewed the drop-testing performed by Exponent, and confirmed that the diameter of the actual puncture was larger than the diameter of the divot created by the Proto® wrench in the drop-test. (*Id.* at 185:7–186:7) Like Lemberg, Kattamis confirmed that he is not aware of any testing performed to date that shows a “dropped spud wrench penetrating the steel.” (*Id.* at 185:13–15)

- ***Paul Way, P.E. – Three Phase’s Electrical & Mechanical Engineer***

Paul Way is Three Phase’s retained electrical and mechanical engineer. Like Lemberg and Kattamis, one of Way’s conclusions is that there is no evidence that a spud wrench owned by Three Phase was dropped and caused the damage to the bushing. (Ex. 27, Way at 145:8–17)

Importantly, Way also explained how the failure could have been caused by something Zachry’s experts have never ruled out—a lightning strike in proximity to the bushing. (*Id.* at 65:6–13) The evidence shows that, a Zachry employee, Joshua McCord, testified that the explosion occurred *during* a rainstorm, that lightning struck “in the area” and “then the fault occurred,” and that “[I]mmediately, our first reaction was that it was struck by lightning.” (Ex. 16, McCord at 97:23–98:25)

Way summarized his conclusions as follows:

What we know is that the bushing had a hole. What we know is that hole may have allowed some water to enter the bushing. What we know is that the bushing failed at the bottom. What we also know is that any water that might have collected there was gone by the time the bushing was removed. And we also know that there was lightning in the area, and lightning can cause those kinds of failures, as can dielectric breakdown. And my opinion is, it's impossible to know which of those two mechanisms resulted in the bushing failure. It may be that the hole did indeed exist, and it may be that water did indeed go in, but it may be that that [sic] water had nothing to do with the failure. It may just be, it was a lightning-caused failure.

(Ex. 27, Way at 195:14–196:2)

Way's testimony further illustrates the number of unknowns in this case and the reality that Zachry has failed to meet its burden to rule out other causes of this accident and present evidence showing that Three Phase is responsible for the puncture and failure of GSU 8001.

\* \* \*

In sum, Zachry's claims in this case are an impermissible pyramid of stacked factual inferences and unsupported, non-scientific opinions. Zachry offers no evidence to contradict Siller, Conley, Brady, and Bullock's factual testimony that no one with Three Phase dropped any tools, or carried or used a spud wrench. Absent facts to show that a Three Phase employee caused this hole that went undiscovered for five weeks after Three Phase completed its work and left the scene, all Zachry can offer is speculation, guesswork, and argument. Argument is not evidence; nor is Three Phase's mere presence at the area five weeks earlier. In the absence of any evidence to support each of the elements of its theory of liability, Zachry cannot defeat summary judgment on its claims. Accordingly, a summary judgment is proper in these circumstances and on this record.

## VI. CONCLUSION

The summary judgment record in this case does not raise any genuine issue of material fact on every element of the claims raised by Plaintiff Zachry Industrial Inc. against Defendant Three Phase Construction, Inc. in this case. Accordingly, Defendant respectfully requests that this Court grant this motion and render summary judgment in its favor that Plaintiff take nothing on its claims in this case.

Date: November 20, 2020

Respectfully submitted,

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### CERTIFICATE OF SERVICE

The undersigned hereby certifies that a copy of the above document was filed electronically with the above-captioned court, with notice of case activity to be generated and sent electronically by the Clerk of said court this 20th day of November, 2020, to the following counsel of record:

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